

**PRELIMINARY AMENDMENT**

Serial Number: 10/016,492

Filing Date: October 22, 2001

Title: COMPUTER KEYBOARD DISPLAY DEVICE CONTROL

Page 11

Dkt: 450.163US2

**CLEAN VERSION OF AMENDED SPECIFICATION PARAGRAPH**

**Clean Version of Page 8, Second Full Paragraph:**

*place  
encl. 11  
on page 6  
NE  
am't  
final  
BI on page*

Controller 18 is a keyboard controller, preferably an integrated circuit (IC) such as the Intel 8042. Keyboard controllers, such as those described generally on page 920 et seq. of the Indispensable PC Hardware Book (2d ed.), which is hereby incorporated by reference, are known within the art. Generally, controller 18 constantly scans circuits leading to the key switches of the individual keys within keyboard 17. It detects the increase or decrease in current from the key that has been pressed. By detecting either an increase or decrease in current, the controller can tell both when a key has been pressed and when it has been released. Each key has a unique set of codes associated with the key. These codes are known as scan codes. There are two scan codes for each key, one for when the key is depressed and the other for when the key is released. When a user presses or releases a key, controller 18 stores the associate scan code in its buffer, and then signals BIOS 20 via an interrupt request (e.g., IRQ 1) that it has a scan code waiting in the buffer. BIOS 20 then receives this scan code from controller 18. Upon receiving the scan code, BIOS 20 instructs controller 18 to delete the code from its buffer.

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On page 11 before the first full paragraph, please add the following paragraphs:

The Keyboard

Depending upon whether you use a keyboard with American, British or some other language assignment, some control, shift or other keys may be named differently. Furthermore, in the literature you will sometimes find different names for the same key, for example the enter or CR keys. Therefore, the following table lists some different names for these keys.

Name	Alternative names
enter key	CR key
control key (Ctrl)	
alternative key (Alt)	
shift key (Shift)	
shift-lock key	caps-lock
cursor up	
cursor down	
cursor left	
cursor right	
insert (ins)	
delete (Del)	
cursor home (Home)	clear-home
end (End)	
page up (Pg Up)	
page down (Pg Dn)	
system request (S-Reg)	

Scan codes - A Keyboard Map

You may have wondered how a keyboard with a British keyboard layout can be

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connected to a Taiwanese PC without the PC always mixing Chinese and English. The reason is quite simple: every key is assigned a so-called scan code that identifies it.

Scan Codes USA

key	scan code	
	dec	hex
F1	59	3b
F2	60	3c
F3	61	3d
F4	62	3e
F5	63	3f
F6	64	40
F7	65	41
F8	66	42
F9	67	43
F10	68	44
Scroll	70	46
home	71	47
cursor up	72	48
page up	73	49
cursor le	75	4b
cursor ri	77	4d
end	79	4f
cursor do	80	50
page do	81	51
F11	87	57
F12	88	58